

Aircraft Tyre Nitrogen Charging Rig

CAPABILITY SHEET · GROUND SUPPORT EQUIPMENT · DELIVERED (DRDO)

THE SYSTEM

WHAT	Trolley-mounted digital nitrogen inflation rig for aircraft tyres: set the target pressure, clip on the chuck - the unit fills, checks, and stops itself at set-point with buzzer confirmation. No over-inflation, no shop-air moisture, no fixed gas infrastructure.
STATUS	Delivered to a DRDO establishment, Pune (2017) against a defence R&D tender, together with a companion 22 kW workshop screw-compressor package.
WHY N2	Dry nitrogen carries no moisture to corrode the wheel, no oxygen to feed brake-heat fires, and holds pressure predictably across temperature - the inflation medium airworthiness practice prescribes.

KEY PARAMETERS (REFERENCE CONFIGURATION)

SUPPLY	2 x 40 L commercial cylinders at 150 bar, UHP Grade-I nitrogen (99.99% purity) - refillable anywhere, independent isolation per cylinder.
REGULATION	Dual-stage: 150 bar storage -> 35 bar interstage -> stable 0-10 bar delivery set-point; stage gauges throughout. Higher delivery ranges (fighter MLG/NLG) engineered with a booster stage.
CONTROL	Electronic charge controller: ceramic pressure sensor, micro-controlled pneumatic valve, LCD set/actual display with bar-psi conversion, confirm function and buzzer; 230 V operation; 4-inch analogue gauge in parallel.
DELIVERY	7 m high-pressure hose with clip-on nozzle; quick-connect charging adapters matched to the aircraft end connection (spare adapter supplied).
TROLLEY	Welded steel tube to IS 4923 (YSt 310), solid-rubber swivel castors with brakes, upright twin-cylinder carriage; spares and tool kit included.

VARIANTS & SUPPORT

VARIANTS	High-pressure booster versions; cylinder-free self-generating PSA nitrogen carts; strut/accumulator multi-outlet servicing; companion workshop air package (22 kW screw, 117 CFM at 10 bar, 300 L receiver).
TENDERS	Send your tender specification - we reply within two working days with a clause-by-clause compliance matrix and budgetary quotation.
EXPORT	Supplied to government operators and MROs internationally; export formalities handled as part of the programme.

DEFENCE PROGRAMMES DESK

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Reference configuration as delivered; pressure ranges, adapters and mounting configurable to customer specification. (c) Neometrix Defence Limited.